

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

1-6. (canceled)

7. (Currently Amended) A method of recording a video sequence having of a first video frame and a second video frame that is non-sequential with respect to the first video frames, comprising:

providing a memory having a plurality of memory locations corresponding to a plurality of memory addresses;

using a linked list to ~~determine select~~ different first and second sets of contiguous ones of the memory addresses where the first set and the second set of addresses are non-contiguous;

~~selecting one of the sets of memory addresses;~~

compressing the first and the second video frames into a first variable sized compressed frame and a second variable size compressed frame having a different size than the first compressed frame; creating first and second variable-sized compressed frames from the first and second video frames, respectively;

writing the first compressed frames to a first memory location having a first memory address within the first selected set, and writing the second compressed frame to a ~~and second ones of the memory locations having a second memory address within the second selected set, respectively, corresponding to first and second memory addresses of the selected set;~~

storing a first and second frame addresses in using an index to store each of corresponding to the first and second memory addresses, respectively, where the compressed frames are written; and

retrieving cueing the second video frame within a single frame latency time while playing back the first video frame by obtaining the second memory-frame address from the index, and decompressing the second compressed frame stored at the second memory location.

8. (Currently Amended) The method of recording of claim 7, wherein the index identifies ~~of the~~ first and second compressed frames using at least one of frame number, time, and date.

9. (Currently Amended) The method of recording of claim 7, wherein the first frame address to which the first compressed frame is written is a start address for a video clip.

10. (Currently Amended) The method of recording of claim 7, wherein the step of ~~selecting one using the linked list to select of~~ the sets of memory addresses comprises selecting a largest one of the sets.

11. (Currently Amended) The method of recording of claim 7, wherein the index comprises an index table stored in a random access memory.

12. (Currently Amended) The method of recording of claim 11, further comprising protecting the first compressed frame from being overwritten by a third variable sized compressed frame via writing the third compressed frame at ~~one a~~ memory location corresponding to at least one of the memory addresses of the first selected set other than the first frame address.

13-16. (canceled)

17. (Currently Amended) The method of recording of claim 7, ~~wherein further comprising~~ looping the memory ~~comprises by~~ creating additional compressed frames from subsequent video frames of the video sequence, and overwriting the first compressed frame with one of the additional compressed frames having a size different from that of the first compressed frame to the memory at the first location at the first memory location.

18. (Currently Amended) A method of storing and playing back a video recording having 1 though n variable length video frames, where n is at least 9 comprising:

storing each of the n video frames in n different memory locations, respectively,

using a random access index to store pointers to each of the n memory locations;

using the index to directly locate, access, and playback any individual ones of the n video frames within a single frame latency time while playing back any one of the other video frames.